

## TRACKING AUTOMATIC GAIN CONTROL

### Abstract

An automatic gain control provides for enhanced acquisition and tracking of wireless signals. The wireless signals may include signals using electrostatic fields, magnetic fields, or electromagnetic fields. In an embodiment, wireless signals are provided as radio frequency signals. The automatic gain control design is intended to quickly acquire new incoming information in a wireless signal. A control unit regulates the automatic gain control to manage the acquisition and gain of the wireless signal based on a transmission protocol. The automatic gain control adjusts the gain for the wireless signal to a minimal level required for detection for a preprogrammed amount of time, at the same time minimizing unwanted background noise from interfering with the data packet. When the communication session is concluded, the automatic gain control can be released allowing increased sensitivity in preparation of the next transmission.

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